**LANGDON PARK SIXTH FORM**

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| **Subject: Mathematics** | **Year: Y12** | **Topic 5: Coordinate Geometry** |

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| ***What and Why*:** Extending your fluency in solving all sorts of problems using Coordinate geometry – building on work you did in GCSE on lines. Circles and tangents and normals to curves |

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| **Straight lines**   * Gradient * Intercept * Finding equations from points * Different forms of equations of lines * Perpendicular and parallel lines * Negative reciprocal relation of gradient * Properties of shapes and proof using lines and gradients * Tangents and normals * Intersection of lines and of lines and curves * Coordinate geometry problems | **Circles**   * Equation of in different forms * Finding the centre from equation * Finding the radius from equation * Completing squares to find centre and radius give equation * Relation between radius and tangent * Distance in and from circle * Intersections with lines and distances from points * Circle geometry problems |

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| **Specification point** | **Pre-reading** | **Application and Assessment (date)** | **Independent learning** | **Extension – Cultural Capital and Reading** |
| B3, B7, B8, B9, B11, C3, C4, E1, E3, E4, E5, E8, | **Topics you should be confident in prior to unit:**   * Linear and quadratic functions, Quadratic formula * Transformations and vector notation, Sketching graphs   **Websites**  [**http://www.a-levelmathstutor.com/functions.php**](http://www.a-levelmathstutor.com/functions.php) | * End of unit assessment * 50% seen * 50% unseen * 90% pass needed or resit required. | Kerboodle Online Login  My Maths  Exam Solutions  Maths Genie | **Online Mathematical articles and content can be found here:**  <https://nrich.maths.org/5748> - women in mathematics  <https://nrich.maths.org/6843> - the history of trigonometry. |

**Pre-assessment content review**

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| I feel secure in | I need to focus on | My action plan |

**Pre-assessment skills review**

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| I feel secure in | I need to focus on | My action plan |

**Post-assessment review**

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| Weaknesses in content knowledge | Skills I need to focus on | My action plan |
| Retest / review – teacher and student comment | | |

**Revision planning**

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| Spec point | Notes complete | Revision materials | Past paper Qs | Timed conditions |
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